

REMARKS/ARGUMENTS

Examiner K. Rose is thanked for the continued thorough Search and Examination of the subject Application for Patent.

Claims 11-12 and 14-19 are pending in this application.

Reconsideration of the Rejection of Claims 11, 12, and 14-19 under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art (Figures 1 and 4) in view of Huang et al. (U.S. Pat. No. 5,961,912) and Freyman et al. (U.S. Pat. No. 5,635,671) is requested. Claims 11, 12, and 14-19 describe a molded package with a disposable mold runner gate having a barrier material formed over a gating area of a substrate wherein the adhesion between the barrier material and the substrate is low and the barrier material is later peeled away and discarded. Conductive traces can be formed in the gating areas of the substrate. Key limitations of Claims 11, 12, and 14-19 are "some of said conductive traces are formed in said gating area of said first surface of said substrate"; "barrier material attached to said gating area of said substrate"; and "encapsulation material formed over a part of said barrier material attached to said gating area of said substrate, thereby forming a mold runner, wherein said barrier material and said encapsulation material are chosen so that the adhesion of said barrier material to said substrate is less than the adhesion of said barrier material to said encapsulation material".

Figs. 1 and 4 of Applicant's prior art show a substrate having a mold runner 33 formed over a gating region 36, see Fig. 4. The Applicant's prior art does not show nor describe conductive traces formed in the gating area of the first surface of the substrate.

Huang et al. describe an encapsulation method for a substrate based electronic device. Huang et al. neither show nor describe conductive traces formed in the gating area of the first surface of the substrate. Huang et al. describe the use of a shim placed on the substrate, but not attached to the substrate, to prevent encapsulation material from contacting the top surface of the substrate. This pre placed shim described by Huang et al. is different from the "barrier material attached to said gating area of said substrate" described in Claims 11, 12, 14-16, and 19.

Freyman et al. describe a degating region for mold runner removal in an encapsulated electronic device. Freyman et al. neither show nor describe conductive traces formed in the gating area of the first surface of the substrate, see Figs. 6C and 9. Freyman et al. does describe the use of electrically conductive material exposed in the degating region to allow electroplating of degating material to the electrically conductive material (see column 7, line 67 to column 8, line 4) however this is different from forming conductive traces, which are electrically connected to the electronic devices and the input/output connections in the package, in the gating area, as is described in Claims 11, 12, and 14-19. If the conductive material used in electroplating described by Freyman et al. is damaged by the removal of the mold runner there is no loss of

functionality of the electronic package. If the conductive traces described by Claims 11, 12, and 4-19 are damaged during removal of the mold runner functionality of the electronic package is lost.

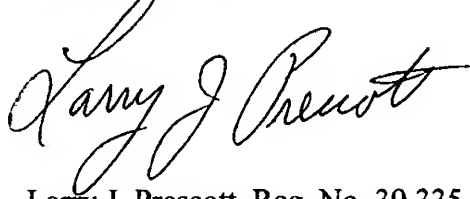
In one embodiment Freyman et al. describe the use of gold degating material, and the use of gold or aluminum bond wire to make electrical connection between the device and substrate, see column 10, lines 44-47. However, Freyman et al. do not describe gold or aluminum bond wire, which Freyman et al. describe as being used to make electrical connection between the device and substrate, in the degating region of the substrate, as are the conductive traces in Claims 11, 12, and 14-19. The gold material in the degating region of the substrate is different from gold or aluminum bond wire.

The Applicant's prior art does not show nor describe conductive traces formed in the gating area of the first surface of the substrate. Huang et al. do not show nor describe conductive traces formed in the gating area of the first surface of the substrate. Freyman et al. do not show nor describe conductive traces formed in the gating area of the first surface of the substrate. Huang et al. and Freyman et al. can not be combined with the Applicant's prior art to make conductive traces formed in the gating area of the first surface of the substrate, as described in Claims 11, 12, and 14-19, an obvious extension of the Applicant's prior art. Reconsideration of the Rejection of Claims 11, 12, and 14-19 under 35 U.S.C. 103(a) as being unpatentable over Applicant's

Prior Art (Figures 1 and 4) in view of Huang et al. and Freyman et al., and allowance of Claims 11, 12, and 14-19, are requested.

It is requested that should Examiner Rose not find that the Claims are now Allowable that the Examiner call the undersigned Agent at (845)-462-5363 to overcome any problems preventing allowance.

Respectfully submitted,

A handwritten signature in cursive script, reading "Larry J. Prescott". The signature is written in black ink and is positioned above the printed name.

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